

PRACTICAL 2 ADMINISTRATION OF NURSING/CLINICAL UNIT

Structure

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2.0 OBJECTIVES

After going through this practical, you should be able to:

- describe concept of nursing unit;
- define the nursing unit;
- draw the physical layout of ideal nursing unit and special unit;
- determine the staffing pattern of nursing unit and special unit; and
- prepare a checklist to assess the functioning of nursing unit.

2.1 INTRODUCTION

At the outset let us consider the importance of planning of nursing unit we all at some stage of our service or later will be associated with planning of our ward work or even a planning of a clinical lesson. In this unit you will learn about the planning of the nursing unit. The concept of general nursing unit has been described followed by various aspects of planning such as Design/physical lay out and staffing of nursing unit. Subsequent you will learn about functions of nursing unit based on principle of management.

2.2 CONCEPT OF NURSING UNIT

Concept in the design and facilities of nursing unit has been changed time to time based on the different categories of patients and peculiarities of nursing care. In the hospital, the nursing unit is broadly classified into **general nursing unit** and **special unit**. General nursing unit is defined as unit where in patients are kept with out any special requirement or consideration. The Special nursing units have extraordinary requirements where in patients are grouped due to age, gravity of illness. Intensive care unit or emergency unit, pediatric, obstetric, and orthopedic unit are few of the example.

2.2.1 Meaning of Nursing Unit

The nursing unit is also called **ward**. The **ward** is defined as grouping of accommodation for the patients with service facilities that enable a team of nurses to care for inpatients under the best possible physical conditions.

Warren P Morrill MD in 1940 defined “A nursing unit as a group of beds and associated facilities that could be supervised by one nurse during the hour of minimum staffing, and suggested that no beds in such unit might range between twenty five to thirty two, depending upon number of beds per room and the maximum travel time distance from the unit facilities.”

A nursing unit is defined as a section of a hospital that includes a nursing station, the beds it serves and the necessary services, storage area, work and public areas needed to carry out the nursing care.

Ward units form 1/3 to ½ of the structural mass of the hospital complex. Most of the equipment and staff is housed in this area. All the medical care, teaching and research are concentrated in this area. It serves as a temporary home for the patients but fundamentally it has to be a convenient for nursing. Therefore it must be designed in accordance with the social needs and habits of the dependent community.

An ideal nursing unit should provide for best of physical facilities, and optimal work environment, which result in a high quality of nursing care. It should be operated at lowest possible cost and provide congenial environment for nursing and medical staff to work.

The planning and designing of a nursing unit is a vital step in hospital planning. Therefore, it is necessary to proceed in an orderly manner through a series of stages in the planning and building a nursing unit. It is particularly necessary to work in a careful and accurate manner. Time spent thinking out clearly what the requirement of the nursing unit is will save money and time in the long run.

The planning of such a unit is being based on the work of the nursing staff and associated staff, which they have to perform. Thus, it caters to the need of mixed groups of patients in various stages of illness or convalescence spending part or whole of their time in bed.

2.3 PURPOSES

The purposes of a nursing unit are to:

- enhance the nurse-patient interaction and to provide high standard of nursing care.
- maximize the efficiency of operation and the ability of the nurses in the nursing unit.

- reduce the nurse's fatigue factor by minimizing time and effort movement of such staff between patient beds and other areas like treatment room, linen room store utility etc.
- meet the functional requirement of the hospital thereby enhance the administrative efficiency and economy.
- meet the expectation of patients.
- meet the goal of nursing unit i.e., to move through nursing unit.
- it results in better material handling.

2.4 TYPES OF NURSING UNITS

The design of nursing unit should maximize the function of the unit by following its task. The design of nursing unit has also undergone a radical change from single nightingale ward to planning T shaped Rigs wards concept. Many variations and modifications of the concept have been met such as socio economic requirement. The primary aim of the ward design is to facilitate the nurse to hear or see everything that happens in the ward and to react accordingly with maximum efficiency and minimum physical efforts. The design, type and location, physical facilities, physical layout and the amount of equipment and supplies markedly influences the quality patient care and smoothness of ward function.

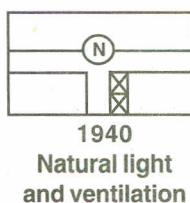
2.4.1 Size

The limiting factor in the size of the ward unit is the capacity of the head nurse to supervise and know intimately the nursing care of each patient. Florence Nightingale recommended a 30-bed-ward and until now the same limit is more or less being followed. However, extreme range of 20-85 beds wards is known to have been made. In an acute ward with rapid turnover, the upper limit is 30. Two or three such units are located on one floor with certain common essential service areas in the middle.

2.4.2 Shapes

Nightingale Ward

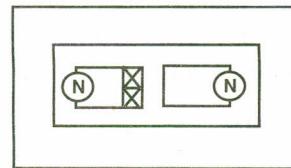
In the 1940s, this traditional nursing unit was based on the long rectangle pavilion type ward and self-contained unit. This concept is established by Florence Nightingale that centers around head nurse. This ward consists of patient's beds in two rows at right angles to the longitudinal wall. The bathroom and sanitary fixtures at one end. Nursing station, doctor's room and other facilities at the other end. It ensured light and ventilation for patient rooms but made long distances from the nurse station to patient rooms at end and provided inadequate privacy, support space and storage.



Rigs Pattern

The nursing unit has been divided into small cubicles for 1, 2, 4 and 6 beds. The beds are arranged parallel to the longitudinal wall. The pattern was first built in Rigs hospital in Copenhagen and it still bears the name of Rigs pattern. In this pattern there is difficulty in communication between the nurse and the patient. It also reduces visibility and observation of the patient, wards become longer, consequently the nurse has to walk more and increase number of nurses required.

Installing call bells, signal lights, or closed circuit TV can overcome rigs pattern. To reduce the walking distance wards may be designed in T, E, and Y shape or with double corridor.



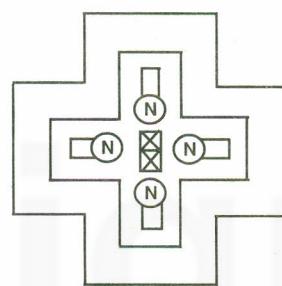
1950

Good support space

Better support space in the 1950s also limited visibility from the nurse station to some patient rooms and elongated nurse travel distances.

Cross-shape

Cross-shape floor plates in the 1960s improved expansion potential, but hurt staffing flexibility and placed the public entrance at the center of the patient care zone.

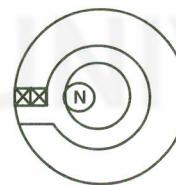


1960

Good expansion potential

Circular

Circular configurations of the 1970s shortened travel paths for nurses, but limited the potential for architectural adaptability. It also meant inadequate support space and storage.

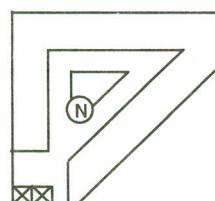


1970

Short travel paths, good
visibility of patients

Triangles

Triangles of the 1980s again shortened travel paths, but limited support space and storage.

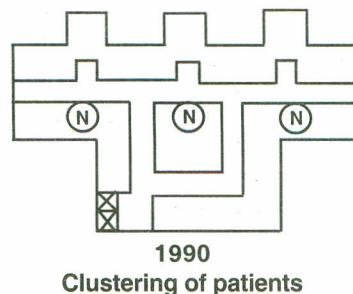


1980

Minimizes travel path

Clusters

Patient clusters of the 1990s promoted the perception of nurse isolation from other caregivers.



Special Type of Wards

Additional accommodation or differences in size and shape of some of the special type of wards e.g. Intensive Care Ward, Infectious diseases ward and so on are given as example in the succeeding paragraphs. Basic accommodation of essential type remains the same as discussed above.

- a) No privacy for the patient.
- b) No freedom from noise.
- c) Danger of cross infection.
- d) Constant glare.

Considering the long distance that the nurse had to traverse, the nursing station was subsequently shifted to the center of the ward. The sanitary annexes also shifted to the central area. A few cubicles were subsequently added to house isolation patients. In tropical climate, wide verandahs were added to protect patients from direct sun light. The modified design had the advantage of providing plenty of fresh air, cross ventilation, natural light and the nurse had direct observation of all the patients.

There are many different types of pattern of nursing unit, which have been adopted by various hospitals. The plan suited to the needs should be selected after studying the prevailing trends and extensive discussion with architect and discussion with senior members of nursing personnel.

2.5 PRE-REQUISITE OF NURSING UNIT

To work effectively in the ward these are certain pre-requisite which are explained in the following text.

2.5.1 Physical Lay Out

Physical lay out of the nursing unit should be planned and built in such a manner so that it helps the head nurse to discharge her duties/carry out her responsibilities efficiently. Location of workrooms, office, medicine and linen closer in relation to the patient unit affect markedly the number of steps that are reduced. In an open ward all patients are in full view of the nurses. It is easier to recognize patients' needs for attention, to locate doctor and nurses for message and to know what is happening when patients are housed in small unit.

- Primary Accommodation
- Bed: It comprises of single bedrooms or multiple bedrooms For planning purposes 120 sq feet per bed is allowed
 - 01 bed-120 sq feet
 - 02 beds-180 sq ft
 - 04 beds-330 sq ft
 - 06 bed 400 sq ft

There should be provision for hand washing, number and location of sinks ensure the availability of running water in every patient's room or just in the utility room determines the amount of walking and time spent to draw and empty bath water, wash hands, clean equipment.

- Treatment Room: Should be in every nursing unit to carry out surgical dressing, basic and advanced nursing procedures. This should reduce risk of infection.
- Nursing Station: The station may be raised in order to have uninterrupted vision of patients. It should be centrally located and constructed in such a manner that nursing staff can provide direct observation while she is in the room preparing injection, using telephone, writing report or charting and still can observe the patients. The nurses station should have following components:
 - Sister's room with attached bath and WC.
 - It should have built cupboard for medicines and dangerous drugs.
 - A large worktable in open space outside Sister's room with stools/chairs for carrying out daily work.
 - Patient nurse call device.
 - Telephone.
 - Built in drug cupboard for daily use medicines and other equipment.
- Medical Officers Room: It should have couch for examination of patients, desk, chair and washbasin.
- Nurses Room: It should be provided with facility for changing into hospital clothing attached with a toilet. There should be provision for cupboards, table and few chairs along with hangers and shelf for keeping their clothes and for taking their meals.
- Clean Utility Room: For storage of IV fluids CSSD articles, dressings, instruments, dressing drums and sterilizer so on, set up trolley or tray for various nursing procedures.
- Stores: For keeping linen and bulk supply of cleaning material.
- Laboratory: A ward laboratory (clinical side room) to perform routine blood, urine and other tests by house surgeons and intern for quick results.

Ancillary Accommodation

- Ward Kitchen/Pantry: It should have large sink and drain board along with fly proof door. If the food is received from central kitchen and tray prepared for serving in the ward or common dinning hall. Provision for cooking warming milk and boiling water and neat place for safe storing of excessive food. The major function of ward kitchen is temporary storage and distribution of meals. Kitchen should be equipped with facilities for hot water, refrigerator, hot cases, storage facilities for crockery and cutlery.
- Day Room : It can be comfortably furnished room with recreational material as provided in the ward as day room is for sitting and relaxing and for meeting visitors. Verandahs can serve as day rooms. It encourages early patient mobilization.

- Conference Hall : Conference hall should have LCD projector with wall mounted screen.
- Stretcher/Trolley Bay: A place where trolley/stretcher and wheel chairs are placed.

Sanitary Accommodation

- Dirty Utility Room. It is provided for cleaning bedpan, urinal, sputum mugs etc. It should be fitted with racks for bedpans, urinals bottles and sputum mug. There should be provision for sinks / washer, free supply of hot /cold water. It should be located near bath and WC annexe.
- Bath and WC
 - i) Urinal - One for 16 beds
 - ii) WC - One for 8 beds
 - iii) Bath - One for 12 beds
 - iv) Wash hand basin - One for 10 beds

Janitor's Room / Safaiwalla Closet. For keeping cleaning materials and buckets, it should have a large sink for cleaning buckets and other equipments with adequate supply of hot and cold water.

- Other Facilities

These facilities include supply of cold and hot water, piped gas for heating purpose, electrical outlets at convenient sites, call system, telephones and clocks. Lighting of wards and treatment areas requires careful designing. Lighting which intended for the central part of the ward should not produce glare. Night lights of low intensity and bed head light for patients may also be provided particularly in single and double bed rooms.

2.5.2 Equipment and Supplies

Nurses who are aware of location of equipment and supplies do give accurate delivery of patient care without delay and wastage of time and energy for collecting equipment. Moreover handling of equipment should not consume a large proportion of total time. Accessibility of equipment is more important even though it means duplication of material in more than one place. Another important point for each ward sister should remember is that equipment should be located in the same place on architecturally similar wards in order to prevent loss of time for nurses who move from ward to ward

- **Bed Head Unit**

- Lighting unit fitted with accessories.
- Central oxygen and suction pipeline
- Calling system
- Monitoring equipments
- Communication equipments
- Fire safety equipments
- BP instruments (Wall mounted)
- Invertors
- Hospital furniture and appliances

- Stretchers
- Trolleys
- Wheel chairs
- Bedside lockers
- Bed sides lamps
- Moveable screens
- Hand wash stands
- Instruments
- Bedpans
- Waste bins.

- **Logistic Support**

- CSSD Items
- Linen and laundry
- Medical Surgical Nursing equipment
- Surgical instruments
- Sterilizers
- Dressing drums
- Trays for: basic and advance nursing procedures.
- Trolleys
- Articles for comfort measure.

- **Resuscitation Room** should have life saving emergency equipments, drug and supplies

- oxygen outlets
- medical air outlets
- suction outlets
- Acute treatment.

- **Kitchen Equipment**

- Crockery and cutlery
- Refrigerators
- Juice maker
- Microwave
- LPG and stove.

- **Bio Medical Waste Disposal Articles**

2.5.3 Staffing

Staffing is the number and composition of nursing personnel assigned to work in a nursing unit at a given time. This helps the head nurse to visualize the equitable distribution of nursing personnel in nursing unit. It serves as a guide for planning daily, weekly and monthly schedules.

- **Why Staffing is Essential**
 - 1) To give comprehensive nursing care
 - 2) To ensure adequate staff requirement
 - 3) To meet patient care standard
 - 4) To prevent over staffing
 - 5) To ensure optimal utilization of existing staff
 - 6) To support professional and personal needs of the nursing
 - 7) To fill up post for regular vacancies for creation of new job.

- **Pre-requisite to Determine Staffing**

- 1) Plan for right person for right job
- 2) Identifying the type and amount of nursing care to be given
- 3) Determine and predict which type of nursing personal required for nursing care
- 4) Activities in the ward are better when each activity is made responsibility to a single person
- 5) Time must be planned.

2.6 FUNCTIONS BASED ON MANAGEMENT PRINCIPLES

- **Planning:** The objectives of nursing unit should be achieved through planning, good coordination and supervision. While planning nursing unit one should identify the opportunities and threat that can be in future and to take action accordingly. Consultation with the staff should be carried out to meet the goals.
- **Organizing:** The head nurse is in charge of a small individual unit. She is responsible for planning, delegating, supervising and coordinating patient care. Effective management requires a high degree of team work hence it needs a thorough understanding of each other's role and the line of authority to avoid any clashes.
- **Reporting:** Reporting at each level is essential so as to give information regarding the functioning of the nursing unit. The clinical records of patient are both scientific and legal. Hence they should be accurate, complete, and legible.
- **Directing:** Nursing unit of the ward is responsible for giving strategic direction to a ward and should have over all perspective of the resources, constraints, objectives and plans of the hospital. Each group of activity with the same objectives must have one head and one plan. Supervision of subordinate and issuing directives should be carried out in orders to accomplish the activities and to provide high quality of patient care.
- **Staffing:** Determine the various categories of staff pattern required in the nursing unit. Selection of staff and assignment made to these personnel the staff needs to be motivated to give their best at all time even in stressful conditions. Nursing unit should enhance the efficiency of nursing staff in the wards rather than making them fatigued.

- **Coordination:** Inter departmental coordination is very important to meet the goals of nursing unit. This results in achieving desired objectives, perfect coordination, with optimum utilization of resources with minimum wasted effort. In addition to ward resources of the nursing unit. Interpersonal relationship plays a major role in consideration as this helps in achieving its objectives only if its parts are coordinated into comprehensive whole.
- **Controlling:** The control should be appropriate with the activity, flexible, economical, and understandable and follow the unit objectives. Periodic assessment of the staff both in quantities and qualitative to the extent of achievement should be against the predetermined standards of the nursing unit. Nursing unit should be so designed that it can operate at minimum cost at the same time also achieve the functional goal of the wards. Provision for financial resources for procuring material /supplies and for maintenance should be made available in the nursing unit.

2.7 SAMPLE CHECK LIST TO ASSESS THE FUNCTIONING OF NURSING UNIT BASED ON PRINCIPLE OF MANAGEMENT

Planning

Did she

- select the objectives and determine the policies, programmes and procedure of the nursing unit?
- establish the ward routine for handling orders, writing and giving reports, checking and ordering supplies?
- plan her assignment which is interesting, stimulating for professional growth?

Patient Care

Did she

- have knowledge of all duties she needs to perform?
- plan for patient care in advance and her work each day?
- assigne duties and responsibilities to her staff?
- encourage the staff to read and plan their duties for the next day before leaving the ward?

Equipment and Supplies

Did she

- provide supplies and equipment suitable for environmental need?
- check equipment for its functioning?
- ensure that equipment is kept clean and ready to use at all times?
- maintain an inventory of equipment and supplies?
- make requisitions for maintenance of supplies and equipment?

- ensure adequate supply of materials?
- check equipment and supplies are accessible or not?
- ensure that equipment and supplies are conveniently located?
- acquire necessary equipment for performance of specific nursing tasks?

Staffing

Did she

- maintain high morale among all staff members?
- delegate the responsibility to her subordinates?
- plan for periodic conference and staff development?
- teach and supervise her subordinates?
- motivate her staff to give their best at all times?

Coordination

Did she

- establish good working relationship within the ward?
- maintain good interpersonal relationship with other health team members?
- make maximum utilization of the resources in addition to the ward resources?

Recording and Reporting

Did she

- update the records and reports on time maintained in the nursing unit?
- check for accuracy, completeness and legibility of the records?
- ensure safety of the records?

Directing/Supervision

Did she

- ensures staff practices the SOP as present in her unit?
- supervise her subordinates regularly?
- ensure one head and one plan with each group of activity?
- orient her new staff member to the nursing unit?

Physical Layout of Nursing Unit

Does the

- primary accommodation have nursing station provided direct observation?
- single bedroom have 120 sq feet of space per bed?
- nursing unit have proper treatment room to carry out various medical/surgical procedures?
- auxiliary accommodation have medical and nurse's room, clean utility room and stores for keeping linen and bulk supplies?

- ancillary accommodation such as kitchen and the dining hall of the patient unit have large sink and drain board along with fly proof door?
- hospitals ensure free supply of cold water in dirty utility room and bathroom?
- janitor's room is kept clean and dry at all times?

2.8 LET US SUM UP

In this practical we have examined what is ideal nursing unit, its concept, types of units and its prerequisites i.e., physical lay out, essential equipments, supplies and staffing. We further studied about the smooth functioning of a nursing unit based on management principles and prepared a checklist for the same.

2.9 KEY WORDS

Ancillary	:	Subservient.
Auxiliary	:	Supplementary /subsidiary.
Checklist	:	Notifying/verifying.
Concept	:	General notion/idea of a class of object.
Design	:	Plan/scheme of any composite structure.
General Unit	:	Which is not particular?
Janitor's Room	:	Person in charge of cleaning.
Physical Layout	:	According to place on a surface in horizontal position.
Primary	:	Of the first importance.
Special Unit	:	Specific/Particular.
Trolley Bay	:	Place where cart pushed by hand are placed.

2.10 ACTIVITIES

- 1) a) Study the physical lay out of your ward/nursing unit where you are working and make a comparative study of same with ideal physical lay out.
b) Present the comparative study done by you in the work area.
- 2) Draw any special nursing unit (ICU/Pediatric/Obstetric/Renal etc) keeping in mind the fundamental requirements of the unit?
- 3) Prepare a checklist to assess the functioning of nursing unit where you are working?